

A NEW SPECIES OF *RHODOPIS* (FABACEAE) FROM HISPANIOLA¹

WALTER S. JUDD

*Department of Botany, University of Florida,
Gainesville, FL 32611*

The species described in this paper was discovered in the botanically little known Loma de la Sal, south of Jarabacoa in the Dominican Republic, and represents the second known species of *Rhodopis*. This genus, described by Urban (1900), is distinguished by its viny habit, unifoliolate leaves, racemose inflorescences with elongate peduncles, red flowers with all petals articulate and the banner the largest and most conspicuous, bilabiate calyx with united upper two lobes and very small lateral lobes, and linear, flat, pubescent legumes. The only previously described species, *R. planisiliqua* (L.) Urban, is a vine of montane regions in the Dominican Republic and Haiti (Barker & Dardeau, 1930; Moscoso, 1943). *Rhodopis* is closely related to the monotypic Puerto Rican genus *Neorudolphia* Britton (Britton & Wilson, 1924). Both are members of the tribe Phaseoleae, subtribe Erythrinae, and their bright red flowers, with a prominent, elongated, banner petal, are superficially similar to those of *Erythrina*. No other characters support a close association of *Rhodopis* and *Neorudolphia* with *Erythrina* (Lackey, 1981).

RHODOPIS LOWDENII Judd, sp. nov. (Figure 1)

Species haec ab *Rhodopis planisiliqua* (L.) Urban differt foliis crassioribus, bullatis, nervo primario, nervis secundariis et nervis tertiariis clare depressis in pagina adaxiali et conspicue elevatis reticulatis in pagina abaxiali, floribus minoribus, calycibus, inflorescentis cum pedunculis brevioribus.

Woody twining vine with glabrous to sparsely pilose twigs. Leaves alternate, unifoliolate; petioles 1–2.7 cm long, sparsely to moderately pilose, with prominent upper and lower pulvini, the former associated with 2 linear, 1.5–3 mm long stipels, and the latter with 2 narrowly triangular, 2–3 mm long stipules; leaflet ovate to nearly elliptic, 3.5–7 cm long, 2–4.2 cm wide, coriaceous, base slightly cordate to rounded, apex slightly to conspicuously acuminate, margin entire, slightly revolute, venation prominent and brochidodromous, with primary, secondary and often tertiary veins impressed on adaxial surface (leaflet thus \pm bullate) and all veins clearly raised-reticulate on abaxial surface, indumentum pilose, i.e., of sparsely to moderately distributed straight, unicellular, nonglandular hairs, becoming nearly

¹ This paper is Florida Agricultural Experiment Station Journal Series No. 4980.

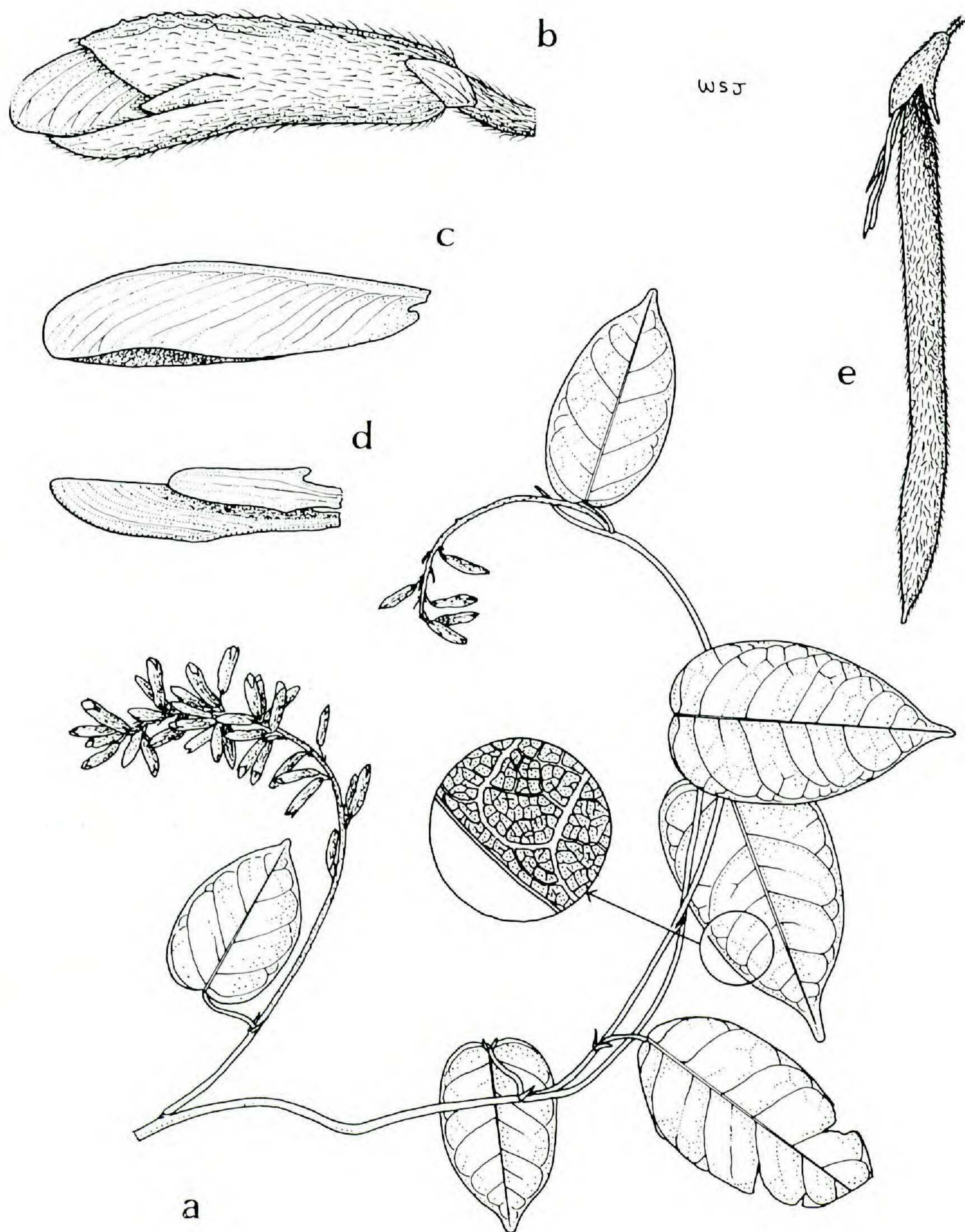


Figure 1. *Rhodopis lowdenii* Judd: a, habit, X .5; b, flower, X 3; c, banner, X 3; e, legume, X 1. Drawn from *Judd 1409*.

glabrous with age above. Inflorescences axillary, racemose, with flowers borne in small fascicles along axis and flowerbearing portion 2–6 cm long; bracts narrowly triangular, to 2 mm long, with acuminate apex, bracelets smaller; peduncle 2.5–6 cm long, bearing usually 1 or 2 minute to foliaceous bracts. Pedicels 2–4.5 mm long, moderately to densely pilose, with 2 small narrowly triangular bracteoles at apex. Calyx tubular and bilabiate, 9–14 mm long, moderately pilose and adaxially roughened, red; the 2 upper sepals completely united forming a broad lobe with free portion 3.5–5.5 mm long, with acute to shortly acuminate apex; 2 lateral lobes much smaller, 2.5–3 mm long, and narrowly ovate; narrowly lanceolate lower lobe slightly longer than upper lobe, 4–5.5 mm long, with acute to acuminate apex. Corolla zygomorphic, red; banner oblong, erect, folded, auriculate, to ca 27 mm long (but in bud only ca 12 mm); wings narrowly oblong and asymmetrically auriculate, smaller (ca 5.5 mm in bud), connivent with keel; keel petals connate, \pm oblong and asymmetrically auriculate, smaller (ca 9.5 mm in bud). Stamens diadelphous, with tube slightly adnate to base of wing and keel petals; filaments alternating long and short; anthers ca 1 mm long. Ovary short-stipitate, many-ovuled, densely pilose; style slender, glabrous; stigma minute. Legume linear, flat, very short stalked, 2-valved, densely pilose, probably elastically dehiscent (only immature fruits seen).

TYPE: DOMINICAN REPUBLIC. PROV. LA VEGA: Loma de la Sal, ca 10 km south of Jaraboca, ca 1280 m alt. in disturbed openings in moist cloud forest, 9 May 1976, W. S. Judd 1409 (HOLOTYPE: FLAS).

Rhodopis lowdenii is easily distinguished from *R. planisiliqua* by its more coriaceous leaflets, i.e., more or less inflexible when dry, with the primary, secondary and tertiary veins clearly adaxially impressed and abaxially raised-reticulate. The leaflets are thus distinctly bullate. In addition the calyx, inflorescence axis, lower leaf surface and petiole are more densely pilose. The flowers are smaller, and the peduncles shorter (2.5–6 cm). The red flowers of both species make bird pollination likely (see Kalin-Arroyo, 1981). Both taxa occur in the Cordillera Central of Hispaniola and they may prove to be sympatric, however, *Rhodopis lowdenii* is presently known only from the type locality.

It is a pleasure to name this distinctive species after Dr. Richard M. Lowden, plant taxonomist at the Universidad Catolica Madre y Maestra, Santiago de los Caballeros, Dominican Republic. His hospitality and helpfulness greatly facilitated my field work in the Dominican Republic.

REFERENCES

- BARKER, H. D. and W. S. DARDEAU. 1930. Flore d' Haiti. 456 pp. Service Technique du Department de L'Agriculture et de L'Enseignement Professionel, Port-Au-Prince.
- BRITTON, N. L. and P. WILSON. 1924. Scientific survey of Porto Rico and the Virgin Islands. 5: 426–427.

- KALIN-ARROYO, M. T. 1981. Breeding systems and pollination biology in Leguminosae. Pp. 723–769 *in* R. M. Polhill and P. H. Raven (eds.), Advances in legume systematics. Part 2. Royal Botanic Gardens, Kew.
- LACKEY, J. A. 1981. Phaseoleae. Pp. 301–327 *in* R. M. Polhill and P. H. Raven (eds.), Advances in legume systematics. Part 1. Royal Botanic Gardens, Kew.
- MOSCOSO, R. M. 1943. Catalogus florae Domingensis. 732 pp. Univ. Santo Domingo, New York.
- URBAN, I. 1900. Leguminosae novae vel minus cognitae. I. Symbolae Antillanae 2: 257–335.